

IN THE CLAIMS

Please cancel claims 1-20 and add new claims 23-40.

Claims 1-20 (Cancelled)

21. (Previously presented) An Internet domain name server (DNS) apparatus comprising:  
a first interface to receive a DNS resolution request; and  
a second interface to return the IP address of a first one of a plurality of servers such that a total number of times that the IP address of the first one of the plurality of servers is returned is proportional to a relative weight of the first one of the plurality of servers relative to a total weight of the plurality of servers.

22. (Previously presented) An Internet domain name server (DNS) apparatus comprising:  
first processing logic to identify a plurality of client domains that have recently requested to be connected to a plurality of servers;  
second processing logic to apportion the plurality of client domains among the plurality of servers such that a percentage of requests served by each one of the plurality of servers is proportional to a relative weight of each respective one of the plurality of servers;  
a first interface to receive a DNS resolution request from one of the plurality of client domains;  
and  
a second interface to return an IP address of one of the plurality of servers to which the one of the client domains was apportioned.

23. (New) The apparatus claimed in claim 21, the second interface periodically determining whether each one of the plurality of servers is down and setting to zero the relative weight of each one of the plurality of servers that is down and recalculating the total weight of the plurality of servers.

24. (New) The apparatus claimed in claim 23, the second interface informing the Internet host of each one of the plurality of servers that is down.

25. (New) The apparatus claimed in claim 21, the second interface periodically determining whether each one of the plurality of servers is generating a time out error, reducing the relative weight of each one of the plurality of servers that generate the time out error, and recalculating the total weight of the plurality of servers.

26. (New) The apparatus claimed in claim 25, the second interface notifying the Internet host of each one of the plurality of servers that is generating the time out error.

27. (New) The apparatus claimed in claim 21 wherein the IP address of the first one of the plurality of servers is returned to the first one of the plurality of clients in a list including IP addresses of the other ones of the plurality of servers such that a total number of times that the IP address of the first one of the plurality of servers is at a top of the list when the list is returned to the plurality of clients is proportional to the relative weight of the first one of the plurality of servers relative to the total weight of the plurality of servers.

28. (New) The apparatus as claimed in claim 22 wherein the second processing logic

apportions the plurality of client domains among the plurality of servers by identifying a number of times each one of the plurality of client domains has recently requested being connected to the plurality of servers.

29. (New) The apparatus as claimed in claim 22 wherein the second processing logic identifies a number of times each one of the plurality of client domains has recently requested being connected to the plurality of servers by reading a recent server log of the Internet host.

30. (New) The apparatus as claimed in claim 22 wherein the IP address of the one of the plurality of servers to which the one of the client domains was apportioned is returned to the first requesting client in a list including IP addresses of the other ones of the plurality of servers such that the IP address of the one of the plurality of servers to which the one of the client domains was apportioned is at a top of the list.

31. (New) The apparatus as claimed in claim 22, the second processing logic periodically determining whether each one of the plurality of servers is down, setting to zero the relative weight of each one of the plurality of servers that is down, and recalculating the total weight of the plurality of servers.

32. (New) The apparatus as claimed in claim 31, the second processing logic notifying the Internet host of each one of the plurality of servers that is down.

33. (New) The apparatus as claimed in claim 22, the second processing logic periodically determining whether each one of the plurality of servers is generating a time out error, reducing

the relative weight of each one of the plurality of servers that generate the time out error, and recalculating the total weight of the plurality of servers.

34. (New) The apparatus as claimed in claim 33, the second processing logic notifying the Internet host of each one of the plurality of servers that is generating the time out error.

35. (New) The apparatus as claimed in claim 22, the first processing logic receiving a DNS resolution request from a second requesting client of a client domain not included in the plurality of client domains that have recently requested to be connected to the plurality of servers, and the second processing logic returning to the second requesting client the IP address of a first one of the plurality of servers such that a total number of times that the IP address of the first one of the plurality of servers is returned is proportional to a leftover capacity of the first one of the plurality of servers relative to a total leftover capacity of the plurality servers.

36. (New) The apparatus as claimed in claim 22 wherein the plurality of client domains that have recently requested to be connected to the plurality of servers include client domains that have recently frequently requested to be connected to the plurality of servers.

37. (New) A domain name server (DNS) apparatus including processing logic to:  
determine a relative weight for each one of the plurality of servers;  
calculate a total weight of the plurality of servers identifying a plurality of client domains that have recently frequently requested to be connected to the plurality of servers;  
identify a number of times each one of the plurality of client domains has recently connected to the plurality of servers;

calculate a total number of times the plurality of servers has been connected to the plurality of client domains;

apportion the plurality of client domains among the plurality of servers such that the relative weight of the first one of the plurality of servers in comparison to the total weight of the plurality of servers is approximately proportional to a cumulative number of times each one of the plurality of client domains apportioned to the first one of the plurality of servers has recently connected to the plurality of servers in comparison to the total number of times the plurality of servers has been connected to the plurality of client domains;

receive a DNS resolution request from a first requesting client of one of the plurality of client domains;

identify said one of the plurality of client domains in which the first requesting client is included; and

return to the first requesting client an IP address of one of the plurality of servers to which said the one of the client domains was apportioned.

38. (New) The apparatus as claimed in claim 37 wherein the processing logic receives a DNS resolution request from a second requesting client of a client domain not included in the plurality of client domains that have recently frequently requested to be connected to the plurality of servers, and returns to the second requesting client the IP address of a first one of the plurality of servers such that a total number of times that the IP address of the first one of the plurality of servers is returned is proportional to a leftover capacity of the first one of the plurality of servers relative to a total leftover capacity of the plurality of servers.

39. (New) The apparatus as claimed in claim 37 wherein the processing logic periodically

determines whether each one of the plurality of servers is down, sets to zero the relative weight of each one of the plurality of servers that is down, and recalculates the total weight of the plurality of servers.

40. (New) The apparatus as claimed in claim 37 wherein the processing logic periodically determines whether each one of the plurality of servers is generating a time out error, reduces the relative weight of each one of the plurality of servers that generate the time out error, and recalculates the total weight of the plurality of servers.